

EXHIBIT 6

Page 1

1 SUPERIOR COURT OF NEW JERSEY
2 LAW DIVISION: MIDDLESEX COUNTY
3 DOCKET NO. MID-2912-17AS
4 APPELLATE DOCKET NO. _____

5 RICARDO RIMONDI AND PILAR RIMONDI,)
6 Plaintiffs,) TRANSCRIPT
7 v.) OF
8 BASF CATALYSTS LLC, et al.,) TRIAL
9 Defendants.)
10 _____)
11)

12 Place: Middlesex County Courthouse
13 56 Paterson Street
14 New Brunswick, New Jersey 08903
15 Date: Tuesday, March 5, 2019
16 (Volume 1 of 2)
17 (Pages 1 - 200)

18 BEFORE:

19 HON. ANA C. VISCOMI, J.S.C. and JURY

20 TRANSCRIPT ORDERED BY:

21 ALLISON BROWN, ESQ.

22 WEIL, GOTSHAL & MANGES LLP

23 ANDREA F. NOCKS, CCR, CRR
24 PRIORITY ONE
25 290 West Mount Pleasant Avenue
Livingston, New Jersey 07039
(718) 983-1234
E-mail: plsteno@veritext.com

Job No. NJ3249822

<p>1 APPEARANCES: 2 MARK A. LINDER, ESQ. JOSEPH N. COTILLETTA, ESQ. 3 LEYDYLUX SYMPHORIEN-RESTREPO, ESQ. MONICA COOPER, ESQ. 4 THE LANIER FIRM Attorneys for Plaintiffs 5 6 ALLISON BROWN, ESQ. WEIL, GOTSHAL & MANGES LLP 7 -and- MORTON DONALD DUBIN, II, ESQ. 8 KEVIN HYNES, ESQ. ORRICK, HERRINGTON & SUTCLIFFE LLP 9 Attorneys for Defendants, Johnson & Johnson, and 10 Johnson & Johnson Consumer, Inc.</p> <p>11 12 13 14 15 16 17 18 19 20 21 22 23 24 25</p>	<p>Page 2</p> <p>1 EXHIBITS IDENT. EVID. Plaintiff's 143 CV 9 2 Plaintiff's MAS entrance photo 25 160.2 3 Plaintiff's Dr. Longo ad 41 161.12 4 Plaintiff's Photo 46 161.6 5 Plaintiff's Photo 46 161.5 6 Plaintiff's Photo 46 160.1 7 Plaintiff's 263 Grid photo 46 Plaintiff's 7275 J4-1 method 64 8 Plaintiff's 5781 Johnson & Johnson's 71 TEM 7024 method, 1995 9 Plaintiff's 8410 Chart 83 Plaintiff's 60 Dr. Blount's article 88 10 161.8 11/14/2018 report 97 161.10 1/15/19 report 97 11 161.1 January 2018 report 97 161.7 2/1/19 report 97 12 161.9 3/11/18 report 161.10 A Images out of 161.10 103 13 161.10 B Images out of 161.10 103 161.10 C Images out of 161.10 103 14 161.10 D Images out of 161.10 103 Plaintiff's 936 Environmental 111 15 Protection Agency Part 763 Asbestos 16 D-11038 MAS TEM Coefficient of 170 Variation for 17 Tremolite Anthophyllite in Talc: 18 Quality Control Study D-12248 Photo 174 19 D-9053 Sample of non-asbestos 175 tremolite 20 D-8019.0001 Determination of 185 Asbestos Minerals in 21 Windsor 66 Talc By a Transmission Electron 22 Microscope D-11249 A Document 199 23 Plaintiff's 24 1975 Johnson & Johnson 217 letter 24 Plaintiff's 8150 1975 letter 229 C-1 Juror question 232 25 C-2 Juror question 232</p> <p>Page 4</p>
<p>1 INDEX 2 WITNESSES DIRECT CROSS REDIRECT RECROSS 3 FOR THE PLAINTIFF: 4 WILLIAM LONGO 7 136 210</p> <p>5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25</p>	<p>Page 3</p> <p>1 COURT OFFICER: Jury's entering. 2 (Jury enters.) 3 THE COURT: Good morning. Please be seated. 4 Make sure cell phones are turned off. 5 Counsel, you may be seated as well. You're welcome. 6 Today is March 5, 2019. We are here in the trial of the matter of Ricardo and Pilar Rimondi versus Johnson & Johnson, Docket Number 2912-17. 7 Could I have appearances, please, on behalf of the plaintiffs. 8 MS. COOPER: Yes, your Honor. Good morning, members of the jury. Monica Cooper on behalf of the plaintiffs. 9 MR. LINDER: Good morning, everyone. Mark Linder, also on behalf of the plaintiffs. 10 MR. COTILLETTA: Good morning, everyone. Joe Cotilletta on behalf of the plaintiffs. 11 MS. SYMPHORIEN-RESTREPO: Hello, everyone. 12 My name is Leydyluz Symphorien-Restrepo, on behalf of the plaintiffs. 13 THE COURT: And on behalf of the defendants Johnson & Johnson. 14 MR. DUBIN: Hello. Morton Dubin, on behalf of Johnson & Johnson. Trying to remember where I am.</p> <p>Page 5</p>

2 (Pages 2 - 5)

<p style="text-align: right;">Page 102</p> <p>1 have any idea how much would be in something this kind 2 of size?</p> <p>3 A That is -- how big is that, 14-ounce?</p> <p>4 Q This is a 22-ounce.</p> <p>5 A 22-ounce. Say you take the average of all 57 6 containers by TEM and even average in the zeros you may 7 have approximately 10,000 fibers and bundles per gram. 8 And there is 28 grams to an ounce. So just on the 9 lower end, say it's 7,000 per gram times 28 gives you 10 ounces. Did you say 22?</p> <p>11 Q Yes. 22-ounce.</p> <p>12 A So in the bottle would be approximately four 13 million asbestos fibers and bundles. If the 268,000 on 14 the high side -- on the other end of the side times 28 15 times 22, that's 165,000 fibers and bundles per gram.</p> <p>16 Q Okay.</p> <p>17 A I mean, not a gram, but in a bottle of a 22-ounce.</p> <p>18 Q Okay. I'm sorry. Did you say four million 19 in fibers and bundles per gram? I'm confused as to 20 what you just --</p> <p>21 A It's 165 million fibers and bundles in a 22-ounce 22 bottle.</p> <p>23 Q Okay. That's what I was trying to 24 understand.</p> <p>25 So even though we're talking about maybe a</p>	<p style="text-align: right;">Page 104</p> <p>1 MR. DUBIN: Okay. Then I have no objection 2 to these for demonstrative purposes.</p> <p>3 THE COURT: Proceed.</p> <p>4 MS. COOPER: If I can get those back?</p> <p>5 MR. DUBIN: Okay. Can I have them back when 6 you're done, please?</p> <p>7 BY MS. COOPER:</p> <p>8 Q First, looking at 161.10 A. Can you first 9 tell me what this is?</p> <p>10 A That's a nine-ounce bottle of Johnson's Baby 11 Powder.</p> <p>12 Q Is this one of the historical samples that 13 you got from Johnson & Johnson?</p> <p>14 A Yes, but not the container. The container never 15 came to our laboratory. These samples were split in a 16 laboratory up here in New Jersey that Johnson & Johnson 17 uses to split the samples and then we got a sample out 18 of that container.</p> <p>19 Q Can you tell me, looking at 161.10 B, what is 20 this?</p> <p>21 A That's a TEM analysis of anthophyllite. It's 22 really the anthophyllite solid solution series. That's 23 an anthophyllite fiber starting in kind of the, I'd say 24 at the, maybe the 10:30 position down to the 5 o'clock 25 position. That is a fiber that is 14.4 micrometers</p>
<p style="text-align: right;">Page 103</p> <p>1 low concentration of a whole bottle, we're talking 2 about millions and billions of fibers coming -- being 3 in just one bottle?</p> <p>4 A For these results, for 22 ounces, it would be in 5 the millions, hundreds of millions.</p> <p>6 Q And are you able to detect, we talk about 7 millions and millions of fibers, are you able to see 8 that with a naked eye?</p> <p>9 A No. You can't see any of these with the naked 10 eye. Not by the PLM, which is the very largest 11 bundles, 100, 200 micrometers in length. If you could 12 see it, you still wouldn't know what it is because it's 13 in the product.</p> <p>14 Q Did you actually, were you able to take 15 pictures of the fibers and bundles you were finding?</p> <p>16 A Yes.</p> <p>17 MS. COOPER: Your Honor, this is -- your 18 Honor, I'll go ahead and mark these for demonstrative 19 purposes. These are from his -- this would be from 20 161.110. And I'll go ahead and mark them as 161.10 A, 21 B, C, and D. And I'm going to tender these to defense 22 counsel for examination.</p> <p>23 MR. DUBIN: Is there a report?</p> <p>24 MS. COOPER: Yes. They're images out of 25 161.10.</p>	<p style="text-align: right;">Page 105</p> <p>1 long, .4 micrometers wide, I believe. I'd have to -- I 2 believe it's a single fiber. I'd have to really look 3 at the photograph in the report or -- it has an aspect 4 ratio of approximately 33-to-1. And it is using the 5 counting rules that we use, which are greater than .5 6 micrometers in length, and this is for regulated 7 asbestos of all the TEM protocol.</p> <p>8 So, is it greater than .5 micrometers in 9 length? Yes. It's 13.4. Greater than or equal. Does 10 it have substantially parallel sides going down the 11 length of the fiber? Yes. Does it have an aspect 12 ratio greater than or equal to 5-to-1, meaning the 13 length divided by the width? Yes. It is 33-to-1.</p> <p>14 By our counting -- not our counting rules, by 15 the counting rules by the Environmental Protection 16 Agency, the American Society of Testing Materials, the 17 International Standards Organization for TEM analysis 18 says that is reported as a regulated asbestos fiber.</p> <p>19 Q In other words, I'm going to go back to 20 testing 101. What do you mean when you say regulated 21 asbestos fiber?</p> <p>22 A It means that when we do this analysis, say an air 23 sample comes in and has been collected in a building 24 where they have removed asbestos, but now they want us 25 to measure to see that the air is clean so people can</p>

<p style="text-align: right;">Page 106</p> <p>1 go back in there. We follow the protocols that say if 2 you analyze this, you have to -- you have to call it 3 regulated asbestos if it meets this criteria. That's 4 the protocol or method we're using. That's what we get 5 audited on. You can't say I'm using this method, but 6 I'm using some other counting rules and I got to 7 determine if it's asbestosiform or non-asbestosiform. It's 8 the counting rules. It's what you have to report.</p> <p>9 That, what we had up there, would be reported 10 as regulated asbestos, and we would put it on our count 11 sheet and we would put how many fibers of cc of air 12 that represents.</p> <p>13 Q Now, I have a few other pictures. 161.10 C; 14 can you tell me, is that a different anthophyllite 15 fiber?</p> <p>16 A It is. I think that's a single fiber. And it's, 17 again, it's anthophyllite, using the governmental ASTM 18 ISO counting rules, 7.5 micrometers, so it's greater 19 than or equal in length to .5 micrometers, or microns; 20 and it's the width of .2, so does it have an aspect 21 ratio greater than 5-to-1, greater than or equal to 22 5-to-1? I can tell you it does by looking at it. And 23 7.5 divided by .2, it has an aspect ratio of 37.5-to-1.</p> <p>24 But you also will have ones that are much 25 lower. But each and every one of them will be meeting</p>	<p style="text-align: right;">Page 108</p> <p>1 looking at the crystalline, the crystalline diffraction 2 patterns to make sure it has the right crystalline 3 structure for regulated asbestos.</p> <p>4 Q Now, we talked a little bit about --</p> <p>5 MR. DUBIN: I'm sorry, can I have those 6 pictures now?</p> <p>7 MS. COOPER: Sure.</p> <p>8 MR. DUBIN: Do you have the identification of 9 which pages of the report these are on?</p> <p>10 MS. COOPER: We can get that.</p> <p>11 BY MS. COOPER:</p> <p>12 Q So we talked a little bit about your results. 13 I want to talk to you a little bit about, and going 14 back to our testing 101, the idea of a non-detect. 15 Some of these are positive, but some of them aren't. 16 Can you tell us what does it mean that it's 17 non-detect?</p> <p>18 A Simply that. When you did the analysis you did 19 not detect any asbestos, not one fiber. So you 20 reported as non-detected. You can't report it as zero 21 and you can't report it as there's probably some there, 22 I just didn't find it. Alls you can say is it's not 23 detectable.</p> <p>24 Q Even on the ones you didn't find the positive 25 doesn't necessarily mean there's no asbestos?</p>
<p style="text-align: right;">Page 107</p> <p>1 the regulated asbestos definition for what we have to 2 count when we use these protocols. We really don't 3 have a lot of leeway in it if you say you're going to 4 use these methods.</p> <p>5 Q Last picture, Dr. Longo, because I want to 6 show different kind of shapes and sizes here. We're 7 looking at 161.10 D. Can you tell us a little bit 8 about this anthophyllite fiber?</p> <p>9 A That would be more --</p> <p>10 Q I'm sorry, I said fiber but I actually don't 11 know.</p> <p>12 A Again, we're looking at pictures off it. The 13 analyst, the microscopist makes the decision. Some of 14 these bundles are obvious. They look like they have 15 wires sticking out the end of it. But to be a bundle 16 it has to have multiple fibers, typically, depending on 17 the protocol, at least two or three, that are touching 18 and all going in the same direction. But the 19 microscopist makes the final decision. It's just that 20 these photographs are not as good.</p> <p>21 So again, in this particular case it has an 22 aspect ratio of about 10-to-1 and meets the definition 23 of counting rules, plus besides this we're doing an 24 analysis where we check the micro chemistry to see if 25 it matches a particular type of asbestos. We're</p>	<p style="text-align: right;">Page 109</p> <p>1 A Alls you can say, scientifically it's non-detect. 2 You can't say there's nothing there, that it's clean. 3 You can only go to your analytical sensitivity. So if 4 there was 2,000 fibers per gram of bundle and our 5 analytical sensitivity is 4,000 grams, we're not going 6 to detect it.</p> <p>7 But on the same token, to be fair, you can't 8 say it's 2,000, all you can say it's below our 9 detection limit. You can't say it's not there and you 10 can't say it's there.</p> <p>11 Q Dr. Longo, I want to move us a little bit 12 down the road because I am trying to get you out of 13 here as soon as we can. We're going to move from your 14 test results now to something I call the name game.</p> <p>15 So we talked a little about the definition of 16 a regulated fiber. Can you first tell us what is -- 17 we've heard the word asbestosiform. When we say 18 something is asbestosiform, what does that mean?</p> <p>19 A It's a definition that states that the mineral has 20 formed like asbestos. It's fibrous. And that's truly 21 just the definition. It just forms like asbestos.</p> <p>22 Q Well, what does it have to be or what do you 23 mean when you say that something is asbestos?</p> <p>24 A We say it's asbestos because we are following the 25 method that gives you the definitions of what you</p>

<p style="text-align: right;">Page 110</p> <p>1 report as asbestos. The fiber length, the fiber width, 2 the chemistry as you get into it; obviously, after it's 3 a fiber you have to say yes, it's asbestos or no, it's 4 not, it's something else; fibrous talc, antigorite or 5 some other mineral.</p> <p>6 Q So you talk about standards for you to be 7 able to count. What standards are you using?</p> <p>8 A For TEM, for PLM we're using the International 9 Standards Organization 22262-1 for PLM, no heavy liquid 10 method. For the heavy liquid density method we're 11 using the Blount method that she published in 1991. 12 So, and we're using the counting rules of what you call 13 asbestos in the ISO 22262-1. They have specific things 14 that they say in order to call it asbestosiform, these 15 are the things that you have to have.</p> <p>16 By transmission electron microscopy there is 17 a number of methods. There's the Environmental 18 Protection Agency, AHERA, A-H-E-R-A, Asbestos Hazard 19 Emergency Response Act that has a TEM method in the 20 back that you have to use if a school is being cleared, 21 so kids can go back in after they have removed 22 asbestos. That has the counting rules we just talked 23 about; greater than or equal to .5, parallel sides, 24 5-to-1 aspect ratio and asbestos.</p> <p>25 It's also the same method that the</p>	<p style="text-align: right;">Page 112</p> <p>1 BY MS. COOPER:</p> <p>2 Q So, Dr. Longo, I'm going to hand you 3 Plaintiff's Exhibit 936. Can you tell me what that is?</p> <p>4 A This is the Environmental Protection Agency Part 5 763 Asbestos, which is part of the AHERA, emergency 6 response -- the Asbestos Emergency Response Act. And 7 it has to do with what you have to do to analyze for 8 asbestos, both polarized light microscopy if you do 9 that or transmission electron microscopy for air 10 samples.</p> <p>11 Q So I want to turn your attention to page 876. 12 And I'm actually going to put it up here on the screen 13 as well.</p> <p>14 So, you mentioned that there is a definition 15 for asbestosiform in here and we see here that it says, 16 "A specific type of mineral fibrosity in which the 17 fibers and fibrils possess high tensile strength and 18 flexibility."</p> <p>19 So, Dr. Longo, how do you count something 20 like that?</p> <p>21 A Well, you can't. It's just a general definition. 22 You know, how do you determine high tensile strength? 23 It's impossible with a polarized microscope or a 24 transmission electron microscope. And what's the 25 definition of high tensile strength?</p>
<p style="text-align: right;">Page 111</p> <p>1 International Standards Organization uses for their TEM 2 method. They have two of them. The fiber is designed 3 exactly what I just said about EPA; same length, same 4 aspect ratio, same everything.</p> <p>5 American Society of Testing Materials has 6 three TEM methods on the books right now -- no, four. 7 They all use that method. They all say if it's this, 8 you count it as asbestos and report it. It's not our 9 counting rules. It's ASTM, International Standards 10 Organization, the EPA; it's the same counting rules. 11 It's fairly straightforward.</p> <p>12 Q Okay. I have a few of these, but I'm just 13 going to show us one of them.</p> <p>14 So you mentioned EPA, ASTM, all these 15 standards that you reference to figure out if something 16 is this regulated asbestos fiber.</p> <p>17 So, your Honor, at this time we're going to 18 be offering for demonstrative purposes Plaintiff's 19 Exhibit 936. Tender to defense counsel for 20 examination.</p> <p>21 MR. DUBIN: This is AHERA? No objection to 22 the use for demonstrative purposes.</p> <p>23 THE COURT: Okay. Proceed.</p> <p>24 MS. COOPER: Your Honor, may I approach?</p> <p>25 THE COURT: Yes.</p>	<p style="text-align: right;">Page 113</p> <p>1 So these are general definitions. What 2 they're asking you to do are flexibility. How do you 3 determine flexibility on a fiber or bundle that is 4 microns in size that you can't even see with a naked 5 eye? There is no test for that.</p> <p>6 And these tests are very specific. You're 7 analyzing regulated asbestos. There's nothing in this 8 earth, there's no analytical scientific equipment that 9 can take single microscopic fibers and measure high 10 tensile strength that's not defined or flexibility 11 that's not defined. And every one of the methods will 12 have this.</p> <p>13 But then if you go down to what a fiber is, 14 they don't define that as high tensile strength or has 15 to have flexibility. They just say here it is, 16 structure greater than or equal to five micrometers in 17 length with an aspect ratio length to width of 5-to-1 18 or greater and having substantially parallel sides. 19 Every TEM method has this.</p> <p>20 Q Okay. So when you're counting it, you're 21 using fiber, whether or not it meets this definition. 22 That's why we call it a regulated fiber. And is that 23 exactly what you did when you were calculating your 24 results?</p> <p>25 A Yes.</p>

<p style="text-align: right;">Page 134</p> <p>1 Q And have you found that, first that talcum 2 powder is a dusty -- a dusty product? 3 A It is.</p> <p>4 Q And is asbestos in the product in such a way 5 that you can breathe it?</p> <p>6 A Yes, it is. It's all fine powder so it's nothing 7 binding in with the talc, not like a product that has 8 asbestos added to it where it's a mixture of other 9 materials. This is a very small particulate that 10 easily gets airborne.</p> <p>11 Q So we might have seen pictures of, say, pills 12 and olive oil and deodorant that has talc in it. If 13 it's not in breathable form, is the asbestos or the 14 talc that has asbestos in it, could that be dangerous?</p> <p>15 A I don't talk about danger or health effects of 16 asbestos. On the other hand, I talk about what is the 17 potential to inhale asbestos fibers or measurements of 18 asbestos fibers in product where you're wearing air 19 samples and you can make a measurement.</p> <p>20 The material is dusty. You're shaking it 21 out, it gets up into the environment, and you're going 22 to be inhaling or breathing the talc. You can see it. 23 Talk about it being dusty, Mr. Rimondi talked about it 24 being dusty, getting up in the air. And even when you 25 can't see it, you can smell it because of the fragrance</p>	<p style="text-align: right;">Page 136</p> <p>1 you're going to find the asbestos?</p> <p>2 A You have to have the highest analytical 3 sensitivity possible to get an idea of can you detect 4 asbestos or not. Using poor analytical sensitivity 5 will not allow you to do that.</p> <p>6 Q And can we agree that all of the opinions 7 given today were, are within a reasonable degree of 8 scientific certainty?</p> <p>9 A Yes.</p> <p>10 MS. COOPER: Your Honor, at this time I pass 11 the witness.</p> <p>12 THE COURT: Thank you.</p> <p>13 Any time you're ready, counsel.</p> <p>14 MR. DUBIN: Yep.</p> <p>15 CROSS-EXAMINATION BY MR. DUBIN:</p> <p>16 Q Hi, Dr. Longo. How are you?</p> <p>17 A Fine. Good afternoon.</p> <p>18 Q Good afternoon.</p> <p>19 All right. So I want to walk through your 20 opinions and hopefully give the jury a little bit more 21 of an understanding of what's going on here.</p> <p>22 First, I think you've already explained that 23 at some point you were given a number of bottles of 24 Johnson & Johnson products to analyze by a few 25 different law firms, right?</p>
<p style="text-align: right;">Page 135</p> <p>1 that is adhered to the talc particles.</p> <p>2 Q Dr. Longo, we talked about the idea of detect 3 and non-detect. Is there a way to guarantee that talc 4 is free of asbestos with the current available methods?</p> <p>5 A No. You can only go to your detection limit.</p> <p>6 Q So if a company wants to guarantee that their 7 baby powder does not have, it is completely free of 8 asbestos, what should they do?</p> <p>9 A The only solution is not sell it with cosmetic 10 talc.</p> <p>11 Q Do you know if Johnson & Johnson sells 12 cornstarch baby powder?</p> <p>13 A They do.</p> <p>14 Q Have you ever heard of asbestos being in 15 cornstarch baby powder?</p> <p>16 A No.</p> <p>17 Q Dr. Longo, we've gotten to the end of our 18 road. I wanted to ask you just finally, if you want to 19 find asbestos, first, do you think it's important to 20 use the best tests?</p> <p>21 A Yes.</p> <p>22 Q Do you think it's important to use the most 23 sensitive tests?</p> <p>24 A Yes.</p> <p>25 Q Do you think that that is the only way that</p>	<p style="text-align: right;">Page 137</p> <p>1 A That is correct.</p> <p>2 Q It was three different law firms, one of 3 which was the Lanier firm, correct?</p> <p>4 A Yes, sir.</p> <p>5 Q And what did they ask you to look for?</p> <p>6 A They asked me to see if it had asbestos in it.</p> <p>7 Q That's not quite right, right? They asked 8 you to look for amphibole. That's what they asked you 9 to look for?</p> <p>10 A That's possible. I don't recall that, but that's 11 possible.</p> <p>12 Q Let's look at some of your testimony.</p> <p>13 (Handing.)</p> <p>14 A Thank you.</p> <p>15 Q I'll let you read it first before attempting 16 to impeach or anything. Give you an opportunity. Look 17 at page 53 of your testimony in the Herford case, line 18 6 through 11.</p> <p>19 A I'm sorry. What was that page again?</p> <p>20 Q I'm sorry. Page 53.</p> <p>21 A Thank you.</p> <p>22 MR. DUBIN: I'm sorry, your Honor. I have 23 one for you, too.</p> <p>24 Here you go. (Handing.)</p> <p>25 THE COURT: Thank you.</p>

<p style="text-align: right;">Page 138</p> <p>1 BY MR. DUBIN:</p> <p>2 Q So when you were hired by those plaintiffs' law firms to look at the Johnson & Johnson product, what did they ask you to look for?</p> <p>5 A Specifically asked to determine if Johnson & Johnson cosmetic talc contains detectable amount of amphiboles.</p> <p>8 Q Right. So the question wasn't asbestos. It was look for amphiboles, right?</p> <p>10 A That's what I stated.</p> <p>11 Q And I want to start there, we'll come back to that in a second because I want to talk about a different type of asbestos and asbestos that's not amphibole and just orient us, if we could put up slide 5.</p> <p>16 So I've written up here what is asbestos, and we're going to talk a lot about that today. But you recognize these various terms that I have up here under what is asbestos, right?</p> <p>20 A I do.</p> <p>21 Q The one I want to focus on first is the only one of the asbestos types that is not an amphibole and that is chrysotile. That's something you're familiar with, right?</p> <p>25 A I am.</p>	<p style="text-align: right;">Page 140</p> <p>1 Q But now, for example, you've done some PLM work without concentration on Johnson & Johnson products, right?</p> <p>4 A That is correct.</p> <p>5 Q So no bias in that against finding chrysotile, right?</p> <p>7 A Yes, sir. There is some.</p> <p>8 Q Okay. Because there may be a thin fiber?</p> <p>9 A Yes, sir. It's harder to see chrysotile by PLM at these concentrations.</p> <p>11 Q But certainly you no longer have the issue of heavy density separation, right?</p> <p>13 A That is correct.</p> <p>14 Q And you still didn't find chrysotile, right?</p> <p>15 A No. We haven't seen it.</p> <p>16 Q And with respect to TEM work, you said there are some limitations for looking at, for chrysotile, with PLM; you could, if you wanted to, do TEM work without concentration to see if there's any chrysotile that you can find in any Johnson & Johnson products, right?</p> <p>22 A Within the limitations of the detection limit, that's correct.</p> <p>24 Q And you have simply chosen not to do that analysis?</p>
<p style="text-align: right;">Page 139</p> <p>1 Q And so based on what we -- we've talked ad nauseam, I know you don't know, you were sitting out in the hall, we were talking ad nauseam about people who claimed to find chrysotile in Johnson & Johnson such as Dr. Lewin, some people at Bowling Green, et cetera. But that wasn't even something that when these lawyers originally approached you even asked you to look for in Johnson & Johnson products, right?</p> <p>9 A According to that testimony, that's correct.</p> <p>10 Q And, in fact, you've analyzed now, I think you said somewhere on the order of 100 bottles of Johnson & Johnson products and you have never reported finding any chrysotile in any of them, right?</p> <p>14 A That is correct.</p> <p>15 Q And I think one of your initial explanations for that is that you used, particularly when you were starting out, this heavy density liquid separation method, sometimes you referred to it as the Blount method, right?</p> <p>20 A Yes.</p> <p>21 Q And you've said that one of the bad things about the Blount method, I guess one of its drawbacks is that it sort of prohibits you from finding chrysotile, right?</p> <p>25 A Correct.</p>	<p style="text-align: right;">Page 141</p> <p>1 A That's correct. Not yet.</p> <p>2 Q So to be clear, when we see documents, plaintiffs have presented documents that chrysotile is in Johnson & Johnson, you, the expert, as the expert coming to testify for them, have not done TEM work without concentration in order to check whether chrysotile is really in this product, right?</p> <p>8 A That is correct.</p> <p>9 Q So let's now talk about amphiboles. And if we go to slide 7, I blocked those out a little bit.</p> <p>11 So now I've separated out the amphibole types from the -- chrysotile is a serpentine mineral, right?</p> <p>13 A That is correct.</p> <p>14 Q And amphibole, the word amphibole does not mean asbestos, correct?</p> <p>16 A Does not.</p> <p>17 Q And you'll see here that for some of the amphiboles, the amphibole asbestos types are listed on the left. For some of the amphiboles there are special names when the amphibole occurs in its asbestos-form, correct?</p> <p>22 A Correct.</p> <p>23 Q So like riebeckite is the non-asbestos version of crocidolite, just as an example?</p> <p>25 A That is correct.</p>

<p style="text-align: right;">Page 142</p> <p>1 Q However, when you get down to some of them, 2 like tremolite, the way they're typically distinguished 3 in various regulations is by calling the non-asbestos 4 one just tremolite, and then calling the asbestos one 5 tremolite asbestos, correct?</p> <p>6 A That's correct in some cases, but not all cases.</p> <p>7 Q Well, we'll look at the cases in which it is 8 correct. The word tremolite does not mean asbestos, 9 correct?</p> <p>10 A If it is a cleavage fragment, that's correct.</p> <p>11 Q The word tremolite does not automatically 12 mean asbestos, correct?</p> <p>13 A If it's a cleavage fragment it is not asbestos.</p> <p>14 Q Okay. The word anthophyllite does not mean 15 it has to be asbestos, right?</p> <p>16 A No. If it's a cleavage fragment it can be called 17 anthophyllite, but also anthophyllite is called it as 18 asbestos, too.</p> <p>19 Q We're looking right here, and we could look 20 at this and all the regulations if you don't want to 21 agree with me on it. There are asbestos types of 22 anthophyllite and non-asbestos types of anthophyllite?</p> <p>23 A I absolutely agree.</p> <p>24 Q There are asbestos types of tremolite, there 25 are non-asbestos types of tremolite, correct?</p>	<p style="text-align: right;">Page 144</p> <p>1 version of it because it's easier to see. All right. 2 I can go to the Elmo.</p> <p>3 All right. That's why I don't usually use 4 the Elmo.</p> <p>5 This has, in this EPA regulation, basically 6 exactly what we were just talking about, right? Has 7 the -- focus -- list of amphiboles, I'll do it in 8 another document, too. It has the list of asbestiform 9 amphiboles and then non-EPA amphiboles exactly like we 10 were discussing; tremolite, actinolite, anthophyllite 11 all have non-asbestos forms, correct?</p> <p>12 A Correct.</p> <p>13 Q And that same regulation has various 14 definitions -- has a definition of what asbestos is, 15 correct?</p> <p>16 A Yes.</p> <p>17 Q And if we look at slide 12, slide 12, that is 18 the definition by the EPA of what asbestos is. It has 19 to be the asbestiform varieties of the minerals that we 20 talked about before, including tremolite and 21 actinolite, right?</p> <p>22 A That's what it states.</p> <p>23 Q And if we look at slide 13, I think you 24 mentioned this before, it has a definition of 25 asbestiform that talks about the mineral fibrosity in</p>
<p style="text-align: right;">Page 143</p> <p>1 A I agree with that, too.</p> <p>2 Q Okay. And to give an example, I know you've 3 seen this image before, slide 8, one of the terms, I 4 think you used the term today massive form. Sometimes 5 it can be called common tremolite, massive tremolite, 6 non-asbestos form tremolite. That's where we're 7 talking about the non-asbestos tremolite, right?</p> <p>8 A Yes, sir.</p> <p>9 Q Then there's asbestiform tremolite, correct?</p> <p>10 A That is correct.</p> <p>11 Q You talked about various health definitions 12 of asbestos and I want to look at a few of what the 13 definitions actually are. So let's start with the EPA. 14 The EPA is the Environmental Protection Agency, 15 correct?</p> <p>16 A That is correct.</p> <p>17 Q And you would agree with me, it is a 18 health-based organization, correct?</p> <p>19 A I would agree.</p> <p>20 Q And plaintiffs marked already an EPA 21 regulation called the AHERA regulation, and that was 22 Plaintiff's Exhibit 936. I want to look at that a 23 little bit more closely.</p> <p>24 So if we go to page 80 of it, blow up that 25 table, I can barely see it myself here, we'll use our</p>	<p style="text-align: right;">Page 145</p> <p>1 which fibers and fibrils possess high tensile strength 2 and flexibility, right?</p> <p>3 A That's what it states.</p> <p>4 Q And those are properties that certain types 5 of minerals have because they grow in an asbestiform 6 habit, right?</p> <p>7 A Yes, sir. They're fibers.</p> <p>8 Q Well, they grow as fibers. That's how the 9 minerals are formed, correct?</p> <p>10 A Correct. The geometrical shape of it.</p> <p>11 Q And OSHA, OSHA is an agency responsible for 12 workplace safety and health, correct?</p> <p>13 A Yes, it is.</p> <p>14 Q And if we go to slide 14, OSHA also makes a 15 distinction between asbestos amphiboles and 16 non-asbestos amphiboles, right?</p> <p>17 A It does.</p> <p>18 Q And they only regulate the ones that are the 19 asbestos forms; for example, tremolite asbestos as 20 opposed to just tremolite, right?</p> <p>21 A That's what they state.</p> <p>22 Q They specifically do not regulate 23 non-asbestiform amphiboles?</p> <p>24 A That's what OSHA states.</p> <p>25 Q And they provide a little bit more detail</p>

Page 146	Page 148
<p>1 about this, too. If we go to slide 15, OSHA makes 2 clear that for purposes of this regulation -- let's 3 talk for a second about what I mean by this regulation. 4 OSHA has regulations regulating the use and 5 exposures to asbestos in the workplace, right? 6 A That is correct. 7 Q And those regulations are intended presumably 8 to help protect workers, correct? 9 A I would assume so. 10 Q And OSHA says, "For purposes of this 11 regulation, the mineral must be one of the six minerals 12 covered and must be in the asbestos growth habit." 13 Correct? 14 A That is correct. 15 Q Now I want to talk about cleavage fragments 16 so we really know what we're -- what terms we're using 17 here. But we have a short video here that I showed in 18 opening, if you show slide 16, to explain what a 19 cleavage fragment is. 20 This is somebody just breaking apart calcite. 21 It's not an amphibole mineral. But you can see 22 obviously, and I think you'll agree, that you can take 23 a non-asbestos mineral and you can break it up into 24 pieces, right? 25 A Yes, sir.</p>	<p>1 asbestos, right? 2 A That is correct. 3 Q But as we can see, some of the pieces, when 4 you break them up, may be long and thin, right? 5 They'll break in all sorts of different shapes and 6 sizes, right? 7 A Yes. 8 Q And you've agreed, I believe, that long, thin 9 cleavage fragments can resemble asbestos fibers, right? 10 A That's correct. 11 Q And so I want to talk about really then what 12 is going on here, and let's start with looking at slide 13 60. Let's say I have done exactly what I just did, 14 break up tremolite, non-asbestos tremolite, and it just 15 so happens to break into a piece of this size and 16 shape. It's over five microns long. It has more than 17 a 5-to-1 aspect ratio, and that's length to width. You 18 will call that asbestos? 19 A Not me. No. I would call it as the regulated 20 asbestos per the counting rules. 21 Q Okay. If you saw that piece you would write 22 down in your report asbestos when you were saying what 23 that was, correct? 24 A Following the counting rules, that's correct. If 25 it looked just like that, yes.</p>
Page 147	Page 149
<p>1 Q And because of the nature of these minerals, 2 they may break along what are called cleavage plains, 3 correct? 4 A Correct. 5 Q So if I go back to slide 8, now let's say I 6 take the rock on the right, the non-asbestos rock. 7 Okay? We're going to start there. And now I'm going 8 to go to slide 17. I can take that non-asbestos rock 9 and I can start to break it up with, for example, a 10 hammer, right? You could do that? 11 A You could. Yes. 12 Q And if you look at slide 18, you'll start to 13 get all sorts of different shapes and sizes as they 14 break along cleavage plains, correct? 15 A Yes. 16 Q And you cannot -- something like this, for 17 example, this process of grinding or breaking things 18 up, if you have a milling process or you're producing, 19 let's say, a talcum powder product, that could also 20 result in trace amounts of tremolite, non-asbestos 21 tremolite being broken up, right? 22 A That's correct. 23 Q But there is not some form of magical 24 transformation. You can't take pieces of the 25 non-asbestos rock and break it up and then call it</p>	<p>1 Q Even though we already just established that 2 if that is from a cleavage fragment it's not really 3 asbestos, right? 4 A If it is actually from a cleavage fragment or it 5 actually is asbestos, because you don't start with 6 pounding a rock and then knowing what you have. You're 7 looking at what the sample is, how it came. So if 8 you're looking at a single fiber like this and you 9 follow the counting rules by EPA, by OSHA, by ISO, you 10 would report that as asbestos. 11 Q This is an important issue and I appreciate 12 you listening to my question and trying to respond 13 directly to me. Okay? 14 That structure comes from breaking apart 15 non-asbestos tremolite. You would agree with me that 16 it's not magically become, in fact, asbestos, right? 17 A Yes, sir. I've already agreed to that. 18 Q Okay. But you would count it and report it 19 in your reports as asbestos, correct? 20 A If your hypothetical is true, that is correct. 21 Q So I want to talk a little bit about then 22 sort of these counting rules and what they really mean; 23 do they mean that something is actually asbestos. 24 Let's start by talking first about a type of 25 microscopy that we haven't mentioned -- well, actually</p>

1 it was shown and not discussed, and that's phase 2 contrast microscopy. Can you tell the jury a little 3 bit about that? 4 A It's an optical microscope and it has a green 5 filter that changes the phase slightly of the direction 6 of the light so that it gives you a little bit better 7 resolution. It's an air sample collected on an air 8 filter. And for phase contrast microscopy, which is 9 the method that OSHA recommends to determine the amount 10 of fibers in the air that NIOSH, National Institutes of 11 Occupational Safety and Health uses, and it has a, you 12 analyze it at a magnification of 430 times. If you 13 have a fiber parallel sides, it's greater than .25 14 micrometers in width, greater than five micrometers in 15 length, and has an aspect ratio greater than or equal 16 to 3, not 5-to-1, but 3-to-1, you count it as a fiber. 17 Q Okay. And so phase contrast microscopy is 18 used, for example, by OSHA as part of regulating 19 asbestos in the workplace, right? 20 A It is. 21 Q And what are some of the drawbacks of phase 22 contrast microscopy in terms of fiber identification? 23 A You cannot determine what the fiber is. You 24 can't -- it only tells you you have a fiber. It's not 25 designed and cannot identify asbestos. It only says	Page 152 1 A Not really, because fiberglass is so big, it's 2 man-made fiber. You can get silica, just silica 3 fibers, but fiberglass is typically not one of them. 4 It looks completely different. 5 Q Okay. So, but those other fibers that you 6 mentioned, let's say again talc, they might meet the 7 counting criteria for asbestos that was set out by OSHA 8 for the workplace, right? 9 A Yes, sir. 10 Q But they are not asbestos? 11 A If you're measuring non-asbestos fibers, no, they 12 will not be asbestos. 13 Q So the fact that something satisfies or hits 14 a counting criteria for asbestos does not make it 15 asbestos, correct? 16 A It's correct for that technique, but it is not 17 correct for the other techniques that actually identify 18 the fiber like transmission electron microscopy. 19 You're sort of taking the definitions of an orange and 20 comparing it to apples. 21 Q Okay. Well, if I counted again one of those 22 other fibers under the OSHA scheme meets counting 23 rules, that doesn't mean that you, Dr. Longo, conclude 24 it's asbestos, right? 25 A No. I would not. I would use transmission
Page 151 1 count this and report it as fiber per cc. 2 Q And so what sorts of things could be counted 3 as positive as asbestos under a phase -- under phase -- 4 let me start that over. 5 What sorts of things other than asbestos 6 could be counted as asbestos under OSHA's counting 7 rules that use phase contrast microscopy? 8 A Anything that is fibrous but you don't just say 9 it's asbestos. Usually phase contrast microscopy is 10 used in conjunction where they're using asbestos 11 products, asbestos added products. So OSHA allows you 12 to make the assumption, since it's an 13 asbestos-containing product, you can call it asbestos 14 fibers. You're not required to go any further than 15 that. 16 Q We'll talk about that in conjunction thing in 17 a minute, but I'm just asking you a simpler question 18 first. What kind of fibers, assuming you have a basis 19 to use that OSHA fiber counting in a workplace, what 20 types of fibers other than asbestos could be counted as 21 asbestos under that technique? 22 A Fibrous talc, fibrous antigorite, fibrous 23 sepiolite; any fibrous material that meets that 24 definition. 25 Q Fiberglass?	Page 153 1 electron microscopy that goes in conjunction with that 2 method to verify it's asbestos. I would never ever 3 take phase contrast microscopy without having any 4 knowledge of what's being sampled and call it asbestos. 5 That is inappropriate. 6 Q We'll talk about your TEM method in a second. 7 To close this one out, to give the jury a sense of what 8 you mean when you say something is countable or 9 regulated, you actually have to look at the regulations 10 and not just the counting criteria, right? 11 A No. You're comparing phase contrast microscopy 12 with TEM. The regulations in those protocols say if it 13 meets these definitions, and of course, you're also 14 getting the chemistry of the fiber, you're also getting 15 the crystalline pattern of the fiber, and it tells you 16 in there you will be calling it asbestos to the TEM 17 counting rules. You can't take phase contrast 18 microscopy and go over and say this is what happens in 19 TEM. That's not applicable. 20 Q Let's explain -- I think you actually said 21 this yourself earlier, which is in OSHA you're dealing 22 with a situation where they've already established that 23 there are asbestos products being used in the 24 workplace, right? 25 A If they're using it for that, yes.

<p style="text-align: right;">Page 158</p> <p>1 not just about do I see a structure that is over 5.5 2 microns in length and greater than 5-to-1 aspect ratio, 3 right?</p> <p>4 A Well, no. It would not have that. This is 5 polarized light microscopy. You're trying to compare 6 this to the counting rules for transmission electron 7 microscopy. That's two different things.</p> <p>8 Q You didn't apply these criteria to your 9 polarized light microscopy, right?</p> <p>10 A Yes, we did. Everything that we have reported in 11 our polarized light microscopy, because we use the ISO 12 22262-1, the mean aspect ratio of the individual fibers 13 in the bundles all were greater than 20-to-1. Some of 14 them were over 100-to-1. We had some 200-to-1, 15 300-to-1. In bundles.</p> <p>16 So yes, they're all greater than five 17 micrometers in length. The smallest bundle we found, I 18 think, was 40 to 50 micrometers in length. So as with 19 the EPA, the R93, now this is not the ISO method that 20 we used, but it meets a lot of these criteria. It's 21 not TEM.</p> <p>22 Q We'll see when we get to your data whether 23 that's correct.</p> <p>24 Additionally, the other counting criteria 25 that you use is the ISO?</p>	<p style="text-align: right;">Page 160</p> <p>1 scale. These definitions have nothing to do with the 2 actual analysis.</p> <p>3 Q Okay. Let's look at one more and then I'll 4 ask you that question again. Go to slide 24. And so 5 it also says, "Asbestos, group of silicate minerals 6 belonging in the serpentine and amphibole groups which 7 have crystallized in the asbestosiform habit causing them 8 to be easily separated into long, thin, flexible, 9 strong fibers when crushed or processed." Right?</p> <p>10 That's also in that method?</p> <p>11 A Correct.</p> <p>12 Q And as I understand your testimony then, the 13 definitions of asbestos in the methods that you 14 personally use, you say, have nothing to do with 15 whether something is actually asbestos or not?</p> <p>16 A No. You're kind of mixing it up a little. We 17 were talking about the general definition of 18 asbestosiform. This is now talking about asbestos. 19 Crystallized in asbestosiform habit, yes. What we 20 determine it is crystallized, it is crystal; and 21 asbestosiform means fibrous if you go to the just 22 geological definition.</p> <p>23 They can be separated in what we find in the 24 long, thin -- well, flexible. Tremolite anthophyllite 25 asbestos is not flexible. And strong fibers when</p>
<p style="text-align: right;">Page 159</p> <p>1 A Yes.</p> <p>2 Q And if we go to slide 22, that criteria also 3 says that for amphibole to be asbestos it has to be 4 amphibole in the asbestosiform habit, right?</p> <p>5 A Yes, sir.</p> <p>6 Q And that criteria also says, if we go to 7 slide 23, to be asbestosiform it has to be a specific 8 type of mineral fibrosity in which the fibers and 9 fibrils possess high tensile strength and flexibility, 10 right?</p> <p>11 A That's what it states.</p> <p>12 Q They're trying to again distinguish between 13 asbestosiform amphibole and non-asbestosiform amphibole 14 here, right?</p> <p>15 A No. This is an overall geological definition. It 16 has nothing to do with the actual analysis.</p> <p>17 Q Nothing to do with the actual analysis 18 because you're saying you're going to rely on the 19 counting criteria?</p> <p>20 A No. It doesn't have anything to do with the 21 actual analysis because there's no way to determine 22 what high tensile strength is in the analysis. It 23 doesn't even tell you what high tensile strength means, 24 100 PSI, 1,000 PSI. It doesn't tell you how to measure 25 the flexibility because you can't on a microscopic</p>	<p style="text-align: right;">Page 161</p> <p>1 crushed or processed. Again, what's strong mean?</p> <p>2 Q Okay. What I'm saying to you very clearly is 3 that you don't make an effort beyond just saying what I 4 found is over .5 microns in length and is greater than 5 a 5-to-1 aspect ratio, you don't make any effort to 6 determine whether or not it meets the definitions of 7 how ISO considers -- what ISO considers asbestos to be?</p> <p>8 A That's not true. We determined that it was 9 crystalline. You can't have something crystallize in a 10 non-crystalline habit. It doesn't work. There's no 11 science behind it.</p> <p>12 Q We're going to be here for a while. You said 13 you --</p> <p>14 MS. COOPER: Objection, your Honor. I think 15 the witness should be able to finish the answer.</p> <p>16 MR. DUBIN: He did --</p> <p>17 THE COURT: Stop.</p> <p>18 MR. DUBIN: Sorry.</p> <p>19 A That's fine. We can move along.</p> <p>20 Q You said you determined that it was 21 crystalline, right? That's what you said you 22 determined about the structures?</p> <p>23 A Yes.</p> <p>24 Q But ISO says crystallized in the asbestosiform 25 habit, correct, not just that it --</p>

<p style="text-align: right;">Page 162</p> <p>1 A I guess I should have finished, asbestosiform means 2 fibrous. Everything that we measured was fibrous. In 3 the habit, the crystalline habit is nothing more than a 4 geology definition for geometrical shapes. As we 5 talked about earlier, the geode, that crystallized in a 6 crystalline habit, but in this case it's not fibrous or 7 dendritic or massive. That's all crystallized in a 8 crystalline habit. That's the general definition. 9 Q Let's see how this plays out in the actual 10 context of your reports. 11 A Yes, sir. 12 Q See whether you're actually doing that. 13 Let's go to slide 19, to back up for a 14 second. So as we said, there were some initial reports 15 from April of, I think August and March that related to 16 an initial set of 32 samples, right? 17 A That's correct. 18 Q And I think you said that the reason you 19 tested 32 samples up to the March 2018 report is 20 because that was what was sent to you, correct? 21 A That is correct. 22 Q And actually, to be fair, the testimony 23 should have been that there were 31 sent to you and one 24 bottle that you purchased off the shelf, right? 25 A That is correct.</p>	<p style="text-align: right;">Page 164</p> <p>1 A We do through the actual written portion of it. 2 But the backup data we have in individual notebooks 3 that you can usually go to. I don't put it together 4 like that. 5 MR. HYNES: Dr. Longo, here's your March 11, 6 2018, report and this is the November 14, 2018, report 7 with pagination. 8 THE WITNESS: Thank you. 9 MR. HYNES: You're welcome. 10 BY MR. DUBIN: 11 Q So, if you could turn, I'll cull up a page 12 out of your March 11, 2018, report, page 450. For us 13 it's D-11031. 14 And so, for example, this is an image that 15 you had in your March report, correct? We discussed 16 this image a while back, right? 17 A We did. 18 Q And one of the things I think you even 19 admitted today is that when you see a single fiber like 20 that, you cannot tell whether it is asbestosiform, right? 21 A In a vacuum like we talked about, that's correct. 22 Q Okay. And yet, as we pointed out earlier, 23 despite the fact that you cannot make that 24 determination, you called this asbestos in your report, 25 right?</p>
<p style="text-align: right;">Page 163</p> <p>1 Q And we're going to talk about that 2 off-the-shelf bottle later. 3 You didn't talk about these results much 4 today so I'm not going to go into them in depth, but a 5 lot of -- these samples came from predominantly from 6 lawyers for plaintiffs in asbestos litigation, right? 7 A That is correct. 8 Q Many of them were purchased, for example, off 9 of eBay, right? 10 A Two-thirds of them. 11 Q And as of the time of these initial reports, 12 there were two things that were sort of different than 13 your analysis in the more recent ones. First, at that 14 point in time, you were only using TEM and not PLM for 15 your analysis? 16 A That's correct. 17 Q And one of the reasons I think you said at 18 that time is you said that basically PLM wasn't going 19 to work, right? 20 A That's correct. 21 Q And another thing I want to talk about how 22 you were handling this asbestosiform issue and the like 23 back then. And what I've done to just try to make this 24 a little easier is you don't add page numbers to 25 your -- page numbers to your reports, huh?</p>	<p style="text-align: right;">Page 165</p> <p>1 A That is correct. It meets the definition of the 2 counting rules by TEM. 3 Q And one of the things that we then see, now I 4 want to talk about your current report, slide -- we go 5 to slide 26. So now you're looking at 54, what we call 6 museum bottles, right? 7 A Yes, sir. 8 Q And what we're going to see here is, we've 9 already said that one of the characteristics of 10 something that's really asbestosiform can be bundle 11 formation, right? 12 A Yes, sir. 13 Q Okay. And therefore, whether you identify 14 something as a bundle or as a single fiber when you're 15 looking at a sample can be important, right? 16 A Not for the counting rules, no. It tells you to, 17 it has two or three or more touching fibers, we just 18 follow the counting rules. So it's not important, I 19 understand the debate on it for asbestosiform or 20 non-asbestosiform. 21 Q Well, one of the things we know is after 22 having been questioned a lot about, well, how can you 23 tell these individual fibers are asbestosiform when we're 24 talking about your old reports, in your new reports, 25 museum reports, you call a lot more stuff bundles,</p>

1 right? 2 A No. We call, if they are bundles we call them 3 bundles. Now, there is more bundles in the population 4 we looked at in the museum samples than there were in 5 the earlier ones. That is correct. 6 Q Well, to compare, if we go to slide 27, for 7 example, now in your museum report, I believe to avoid 8 this whole asbestosiform debate, you now call 93 percent 9 of what you're finding bundles. Do you call 93 percent 10 of bundles what you're finding in your museum report? 11 A The way the question was asked, I'd have to say no 12 and yes. 13 Q Well, let me then rephrase it to see if we 14 can just get a yes. 15 You call about 93 percent of what you find in 16 your museum report bundles, right? 17 A That's correct. 18 Q And to give you some examples, I just marked 19 this separately so you can have them, 11029 A, and 20 10 -- I'm sorry, 11031 A, so you have separately some 21 images we're going to talk about. They'll all be in 22 your reports, and I'll give you the page cites to make 23 it easier for counsel to follow along. And I'll give 24 Dr. Longo a copy to make it easier. 25 Just so we can see the comparison of some	Page 168 1 right? 2 A Yes, sir. That's what the microscopist stated. 3 Q And another reason this distinction can be 4 important sometimes is if we look at your November 14, 5 2018, report at 340, so that would be out of D-11029, 6 sometimes you'll find structures that are simply just 7 too wide to be individual asbestos fibers, right? 8 A That's correct. 9 Q Okay. And so if this isn't a bundle, then it 10 would have to be a cleavage fragment, right? 11 A For tremolite? 12 Q Yes. 13 A Those fibers do not get that big, but it is a 14 bundle. 15 Q Okay. So you call it a bundle and then call 16 it asbestos, right? 17 A Even if it was too wide, it would still be called 18 asbestos, but that is a bundle. 19 Q Okay. So it would be called asbestos by you 20 even though if it was that wide it would be a cleavage 21 fragment? 22 A It's not by me. It's the health and safety 23 counting rules for these types of structures. But that 24 is a bundle. 25 Q Okay. And I think your suggestion is that, I
Page 167 1 things in the old reports you were going to call single 2 fibers and now bundles. I showed this slide in 3 opening, slide 28. And you'll see these images in what 4 I handed to you before, just to verify them. On the 5 left, that's from your 3/11/2018 report at page 634, 6 and you called that image a single fiber, correct? 7 A That's what it states, yes. 8 Q Okay. And on the right, that's now from your 9 November 14, 2018, report, and now you're calling it, 10 that structure, different structure, but you're calling 11 that thing a fiber bundle, right? 12 A Yes. That's the microscopist who called that. 13 Q Okay. And I also showed in the opening slide 14 29. So in your old reports, the March 11, 2018, 15 report, you called that structure on the left a single 16 fiber, right, correct? 17 A That's what's in the report, yes. 18 Q Okay. In the right, now we're in your 19 November 14, 2018, report, on the right you're going to 20 call that a fiber bundle, right? 21 A Yes, sir. 22 Q Another example, slide 30; on the left you're 23 going to call that, you called that March 11, 2018, 24 that was termed a single fiber, and now on the right, 25 November 14, 2018, you're calling that a fiber bundle,	Page 169 1 guess, it sounds like your suggestion is that somehow 2 you're just calling it objectively whether these are 3 bundles or fibers. Is that what you're suggesting? 4 A I mean, a human does do it, but the human sitting 5 at the microscope, where you're looking at it and 6 you're putting the binoculars in place and you're 7 looking at it 200,000 times and you can focus through 8 it, it's their decision to do that. 9 Q Let's talk about their decision versus -- 10 let's first start with, okay, you're saying people 11 making this call. Those are your analysts working at 12 your lab, right? 13 A Yes, sir. 14 Q And actually, I know this wasn't the purpose 15 of the test, but a little while before you produced 16 your report on the museum samples you actually did a 17 little test inside MAS of your analysts where they 18 looked at the exact same material, same grid squares, 19 and they wrote down, among other things, whether they 20 thought something was a fiber or a bundle or the like, 21 right? 22 A Yes. As you pointed out, that wasn't what the 23 verification was, but that's what they did. 24 Q And that was called the MAS TEM Coefficient 25 of Variation for Tremolite Anthophyllite in Talc:

1 Quality Control Study? 2 A Yes, sir. 3 Q This is marked as DD-261 -- I'm sorry, 4 D-11038. Just for demonstrative purposes. 5 MS. COOPER: For demonstrative purposes, your 6 Honor. 7 THE COURT: What's the marking on that? 8 MR. DUBIN: It is D-11038. 9 THE COURT: Thank you. 10 BY MR. DUBIN: 11 Q So one of the things, again, these are your 12 analysts looking at the exact same stuff not for 13 purposes of the Johnson & Johnson litigation report 14 that we're going to talk about, but trying to figure 15 out consistency among the analysts, right? 16 A It's a little bit more than that. A consistency 17 on, if they look at the exact same opening, do they 18 count the same number of asbestos structures, so that 19 you can get a coefficient of variation for the error in 20 the counting the number of structures from one opening 21 to the next. That's what it was designed for. 22 Q And so we know what the results were in that 23 context, if you look at slide 32. Okay. So these were 24 various analysts putting down whether they thought 25 something they were looking at was a bundle or a fiber,	Page 170 1 quadrillions of asbestos fiber bundles, so this is just 2 one population. It's not surprising to me. 3 Q And even this morning you were asked about a 4 couple different -- I've cut the pages out to make it a 5 little easier for you. You were asked about a couple 6 different images by Miss Cooper. (Handing.) 7 THE COURT: For the record, that's what you 8 handed to the witness? 9 MR. DUBIN: Yes, your Honor, for his ease of 10 reference. He's already got those full reports up 11 there. 12 BY MR. DUBIN: 13 Q So, for example, if we look at one of your 14 reports, D-11029, at page 999, you were shown this 15 image this morning by Miss Cooper and I think you said 16 that's a single fiber, right? Right? 17 A Yes. 18 Q And so if it's a single fiber, again then I 19 could say, Dr. Longo, you know that seeing a single 20 fiber in isolation on TEM, you can't tell whether 21 that's asbestiform, right? 22 A In a vacuum, that's correct. 23 Q But if you called it a bundle then you can 24 say well, a bundle by itself is asbestiform because a 25 bundle is asbestos, right?
1 among other information, right? 2 A Yes. They did put that down. 3 Q And if we click through, we'll see there was 4 actually only one time that your analysts, outside the 5 context of this, all agreed as to what something was, 6 correct? 7 A Yes and no. 8 Q Okay. Well, there was only one time where 9 they all agreed as to whether something was a bundle or 10 fiber, right? 11 A That would be the yes part. But they all agreed 12 that this was tremolite, it came from the standard, and 13 that their error of coefficient or counting rate error 14 for the number of structures was six percent which is 15 pretty good. 16 Q But then somehow with slide 27, somehow now 17 in the -- go to slide 27 -- but somehow now in the 18 litigation report against Johnson & Johnson, 19 everybody's pretty much coming up bundles in the museum 20 report, right? 21 A Well, no. It's not somehow. The analyst is 22 making the decision. And in a lot of the photographs 23 that we didn't look at are clearly looked like have 24 fibers sticking out of it. And yes, it's these many 25 fibers, but we're dealing with mines that have	Page 171 1 A Again, if you have no other information you can, 2 yes. 3 Q And can you tell us what this thing that you 4 called a single fiber was classified as in your 5 litigation report against Johnson & Johnson? And I 6 think it's on page 990, right? 7 A Yes. This verification of Lee Poye's analysis 8 states, I think this is number structure 3, it states 9 that it's a bundle. 10 Q Okay. So this morning when you looked at it, 11 you said single fiber. In your report it says bundle, 12 right? 13 A Well, that's not quite fair. What I said this 14 morning is it looks like a fiber, but we're looking at 15 it on a picture. You have to really for ones that are 16 this close, you can see if I look at it closely now. 17 But you really need to be at the TEM. 18 And what's interesting about this one, as I 19 recall, this had already been analyzed by another 20 laboratory and I think we're in almost 90 something 21 percent agreement for bundles and fibers. 22 MR. DUBIN: I'm going to object to the 23 non-responsive portion of that answer. Ask it be 24 stricken. 25 THE COURT: The jury will not consider that

1 last portion of the testimony. That is stricken from 2 the record. 3 THE WITNESS: I'm sorry, your Honor. 4 THE COURT: Just answer the question being 5 asked, please. 6 BY MR. DUBIN: 7 Q And another example -- may I approach, your 8 Honor? 9 THE COURT: Yes. 10 MR. DUBIN: (Handing.) 11 BY MR. DUBIN: 12 Q The surprise of this is ruined, but if you 13 could cull up just for demonstrative, D-12248, you were 14 asked about this in the deposition recently. Blow up 15 that one right there. You were shown this in a recent 16 deposition and you were asked what is it, right? You 17 recall that? 18 A I do. 19 Q And you said well, definitely asbestosiform, I 20 see multiple fibers in the bundles, all that stuff, 21 right? You recall that? 22 A I do. 23 Q And then you were shown what it actually is, 24 correct? 25 A I believe so.	Page 174 1 A Yes, sir. 2 Q Talk a little bit about testing. 3 First, if we could cull up slide 37, you're 4 familiar with McCrone and McCrone Laboratories, right? 5 A I am. 6 Q So I want to talk a little bit about them 7 because you know that's one of the entities that did 8 testing for asbestos for Johnson & Johnson, right? 9 A I do know that. 10 Q And so we talked a little bit about testing 11 methods this morning and one of the first ones you 12 talked about was the J4-1. If we look at slide 38. 13 So the J4-1 cosmetic industry testing 14 standard, that required the use of XRD and then if XRD 15 is positive, you use PLM, right? 16 A That is correct. 17 Q And you also mentioned some work that you 18 did, if we could show 39, you did work for a company 19 called Scotts at some point, litigation work? 20 A Yes, sir. 21 Q And Scotts, go to slide 40, Scotts testing, a 22 different company, what they did back in the day, the 23 1970s, they did XRD without concentration and PLM 24 without concentration and they did not do any TEM work, 25 right?
Page 175 1 Q Let's look at that. D-9053. D-9053 for 2 demonstrative purposes only. (Handing.) 3 A Thank you. 4 Q And that sample is actually a sample of 5 non-asbestos tremolite, right? 6 A That's what it states. 7 Q So the one you were calling a bundle of 8 asbestos was actually not asbestos, correct? 9 A I would disagree. 10 Q Okay. It's from a non-asbestos tremolite 11 rock, right? 12 A That's what it states. But I can clearly see the 13 striations in there, so I would disagree with that. 14 Q Okay. So you would disagree with this 15 report. Just to show what it is, go to the first page. 16 This is from the Bureau of Mines, United States 17 Department of the Interior, right? 18 A No, sir. I'm not disagreeing with the document. 19 I think it's a very good document that has a lot of 20 good useful information. I'm just disagreeing on that 21 one structure, in the midst of everything around it is 22 cleavage fragments. I absolutely agree with that. 23 Q We're going to come back to your reports a 24 little bit later, but I'm going to switch gears for a 25 second.	Page 175 1 A Correct. The labs they used did not do that. 2 Q We know that's not right. They used McCrone. 3 A Correct. But McCrone never told them they should 4 use TEM. 5 Q And one of the things, just talking about, 6 you know, perspective when you're working for a 7 defendant, one of the things you said is that Scotts, 8 it would be unfair to criticize Scotts for not going 9 beyond even just these two methods, XRD and PLM back in 10 the 1970s, right? 11 A That's correct. I stated that. 12 Q And you know that, if we look at slide 41, 13 unlike Scotts and unlike the cosmetic industry at 14 large, Johnson & Johnson did go beyond those two 15 methods to do TEM work, right? 16 A That's correct. 17 Q And I think you said your understanding was 18 it was quarterly testing by TEM? 19 A That's what I thought. 20 Q Okay. You sure about that? 21 A I mean, I don't have the document in front of me. 22 I know they put composites together and by TEM 23 analysis, as I recall, is every three months or every 24 two months. In some cases, sometimes more. 25 Q Okay. Well, we can look at this. It's

<p style="text-align: right;">Page 190</p> <p>1 because he believed that there might be chrysotile 2 asbestos even in the actual filters they were using, 3 right?</p> <p>4 A Well, it's more than a belief. That was a problem 5 in the manufacturing for polycarbonate filters. They 6 were pre-contaminated before they got to your lab.</p> <p>7 Q Okay. Irrespective, he recommended an 18 8 fiber limit for statistical significance, right?</p> <p>9 A Again, it depended on what was on the background. 10 It was a range depending on what you found. So it 11 wasn't just 18.</p> <p>12 Q And I think you've agreed before, I think you 13 know where I'm going, but it's important, when 14 evaluating a method, to know what its analytical 15 sensitivity is, right?</p> <p>16 A Yes, sir.</p> <p>17 Q And it's also important to know what your 18 detection limit is, right?</p> <p>19 A Correct.</p> <p>20 Q And you produced, originally produced your 21 March 11, 2018, report in an electronic format, right?</p> <p>22 A Yes, sir.</p> <p>23 Q And you produced them as PDFs, correct?</p> <p>24 A That's correct.</p> <p>25 Q I'm not going to belabor this, but -- and</p>	<p style="text-align: right;">Page 192</p> <p>1 First of all, you gave a percentage by PLM, 2 and what was the percentage you were saying of asbestos 3 in the product by PLM?</p> <p>4 A It ranged from less than .1 percent, and for some 5 of the -- some of the, I believe it was the Asian, I 6 think it was as high as .2 or .1.</p> <p>7 Q Those numbers are not actually the percentage 8 that you're finding in the products, right?</p> <p>9 A It's the percentage found in the heavy liquid 10 density portion of it.</p> <p>11 Q Right. So what you're actually reporting, 12 'cause you admit you made it sound like that was the 13 percentage in the bottle, right?</p> <p>14 A It's the percentage of what was found on the 15 slide.</p> <p>16 Q Okay. That's certainly not what you said 17 this morning, right?</p> <p>18 A I'm not sure. But that's the percentage they 19 found.</p> <p>20 Q What it really is, is after you do the heavy 21 density liquid separation, you've separated out what 22 you want to separate out, right?</p> <p>23 A Correct.</p> <p>24 Q Then you're testing that separated out part 25 and that's the percentage you're talking about?</p>
<p style="text-align: right;">Page 191</p> <p>1 take our time up, as I think you'll agree with me that 2 this is what happens, if we can show slide 48. At some 3 point we discovered something about your electronic 4 reports, and you remember us going through this, right?</p> <p>5 A I do.</p> <p>6 Q What happens is that there are certain data 7 in your reports that is whited out electronically, 8 correct?</p> <p>9 A The detection limit and analytical sensitivity 10 because of the analysis, that's correct.</p> <p>11 Q So I don't know if this -- so what happened 12 is if you put your cursor over a blank spot in your 13 report and you press delete, this white box that was 14 covering up certain data disappears and you can 15 actually see that there used to be something in the 16 report before you gave it to us, right?</p> <p>17 A That's correct.</p> <p>18 Q And that's the information on your reports, 19 detection limits and analytical sensitivities, correct?</p> <p>20 A That's correct.</p> <p>21 Q It's much faster to do it that way, right?</p> <p>22 All right. So I want to talk a little bit 23 about, you skipped some stuff so I'm skipping some 24 stuff, the percentages in the product that you 25 mentioned earlier today.</p>	<p style="text-align: right;">Page 193</p> <p>1 A What was seen on that slide. That's correct.</p> <p>2 Q Right. So it is not representing, there's no 3 data there that's representing how much asbestos there 4 is in the product in the beginning, right?</p> <p>5 A Well, not exactly. No. We also have the ISO PLM 6 that's not using heavy liquid and they usually 7 correlate, so the analyst takes that into account. 8 Occasionally you'll have it higher in the Blount, but a 9 lot of the times it's less than .1 percent and it's the 10 same.</p> <p>11 Q But all of your ISO work that did not involve 12 concentration, if you reported concentration at all, 13 you just report it as below .1 percent, right?</p> <p>14 A Yes, sir.</p> <p>15 Q So this .2 percent, .3 percent you were 16 talking about by weight is from PLM that does not 17 relate to a percentage in the product?</p> <p>18 A I'm just looking through the PLM.</p> <p>19 THE COURT: For the record, which report are 20 you looking at, Dr. Longo?</p> <p>21 THE WITNESS: I'm sorry, your Honor. I'm 22 looking at November 14.</p> <p>23 THE COURT: Thank you.</p> <p>24 A I think that is true, only in the Asian samples, 25 unless I'm missing something.</p>

1 Q None of the samples relevant to these 2 exposures having to do with Italy and Vermont? 3 A That's correct. 4 Q So again, if somebody comes up and says oh, 5 well, Dr. Longo said I found .2 or .3 by weight, by PLM 6 in the bottle as opposed to your concentrate, that 7 wouldn't be correct, right? 8 A If it's just in the concentrate it's probably a 9 factor of approximately ten, so instead of less than 10 0.1, it's still less than 0.1. 11 Q And this morning you mentioned a bunch of 12 numbers about how many fibers per gram there were of 13 whatever you're calling asbestos in the museum samples. 14 You recall discussing the fiber per gram numbers? 15 A Yes. 16 Q But you actually also have weight percentages 17 for your TEM analysis that you didn't discuss this 18 morning, right? 19 A That is correct. 20 Q And if we look at those just basically, slide 21 54, at least in the museum samples that you said you 22 were relying on for today, the highest concentration 23 was around .0092 of a percent, or 9.2 thousandths of a 24 percent, right? 25 A That is correct.	Page 194 1 you had received, right? 2 A Correct. 3 Q You were also deposed in, let's look at slide 4 35, put this in time period. You were deposed at some 5 point in a case called Wittman? 6 Do you recall that at all? 7 A No. 8 Q Well -- 9 MS. COOPER: Your Honor, objection. May we 10 approach? 11 THE COURT: Sure. Take that down, please. 12 (Sidebar.) 13 MS. COOPER: Your Honor, I am just worried 14 about getting into improper impeachment when we haven't 15 identified when and where, what deposition. He's just 16 said he doesn't even know about this. I just want to 17 make sure. But if they're going to first impeach him 18 they need to give him some context what we're talking 19 about before we show it. 20 MR. DUBIN: I haven't started to impeach him 21 yet. I am simply putting some dates down to get 22 oriented for some questions. 23 THE COURT: Nothing that I've heard this far 24 has been objectionable. Asking him if he recalls 25 testifying in a particular case is not improper. I
Page 195 1 Q Okay. I want to talk to you about -- I want 2 to talk to you about one more issue for now. And let's 3 start with slide 34. And I want to talk to you about 4 testing of off-the-shelf bottles. 5 So to orient ourselves, I think we had 6 already talked about this, that in your initial reports 7 you tested 31 bottles from plaintiffs' law firms and 8 one bottle that MAS purchased off the shelf, right? 9 A Yes. 10 Q All of the 31 that you received from 11 plaintiffs' law firms were not sealed, correct? 12 A They were all not sealed. 13 Q Right. The only sealed bottle was one that 14 you purchased, that you reported on was one that you 15 purchased off the shelf, and you did not detect any 16 asbestos in that off-the-shelf bottle, right? 17 A That is correct. 18 Q You said that you had purchased about 15 to 19 20 off the shelf, but you didn't test any of the others 20 that MAS purchased off the shelf, right? 21 A That is correct. 22 Q And if we go to slide 19. As I think we 23 said, you've testified before that the reason that 24 there are 32 bottles discussed up until the March 20, 25 '18, report is that those -- that because that's what	Page 197 1 understand the point. I think counsel is trying to get 2 us through this. 3 (Sidebar ends.) 4 THE COURT: You may continue. Put that back 5 up. 6 BY MR. DUBIN: 7 Q And I'm going to hand you a copy of your 8 deposition in case you need to refresh your 9 recollection of anything. And one of the things that 10 you told us in November of 2017 was that you had not 11 done any analysis of any Johnson & Johnson Baby Powder 12 or Shower to Shower at that point, other than the 13 ones -- 30 that had been in your earlier August report, 14 and then you included in your March report, as I said, 15 one more Lanier sample and that was from eBay and your 16 MAS off-the-shelf bottle, right? 17 A I don't recall that, but that's probably correct. 18 Q Well, maybe you can just refresh your 19 recollection, if you want to read. But I think you 20 told us at that time that you hadn't done any TEM 21 analysis on any additional J&J samples other than the 22 one Lanier sample and the MAS control bottle, right? 23 A I don't recall saying that. 24 Q Why don't you read your deposition? You can 25 just see if it refreshes your recollection. If you

Page 198	Page 200
<p>1 look at 85:25 through 86:23. Read it to yourself for 2 now.</p> <p>3 A Okay.</p> <p>4 Q So you told us that other than the two 5 additional that would end up making 32 by March of 6 2018, that at the time of the Wittman deposition in 7 November 2017, you hadn't done any TEM analysis on any 8 additional J&J samples, right?</p> <p>9 A That's what I must have thought at the time. Yes, 10 sir.</p> <p>11 Q That's what you swore to under oath, correct?</p> <p>12 A I believed it, yes.</p> <p>13 Q You believed it. Do you now believe it?</p> <p>14 A It's been a lot of samples.</p> <p>15 Q Well, when you told us the reason there were 16 32 in the March 2018 report because that was what you 17 had received, that was false testimony, correct?</p> <p>18 A I'm sure that is.</p> <p>19 Q When you told us in Wittman that you had at 20 that time in November only looked at the 30 bottles 21 plus the two that would go in your March 2018 report, 22 that was also false testimony, correct?</p> <p>23 A Again, I don't recall that.</p> <p>24 Q Okay. Let's look at it. (Handing.)</p> <p>25 THE COURT: What have you handed the witness?</p>	<p>1 CERTIFICATION</p> <p>2</p> <p>3 I, ANDREA F. NOCKS, C.S.R., License Number 4 30XI00157300, an Certified Court Reporter in and for the 5 State of New Jersey, do hereby certify the foregoing to 6 be prepared in full compliance with the current 7 Transcript Format for Judicial Proceedings and is a true 8 and accurate non-compressed transcript to the 9 Best of my knowledge and ability.</p> <p>10</p> <p>11 <i>Andrea Nocks CCR CRR</i></p> <p>12 ANDREA F. NOCKS March 5, 2019</p> <p>13 CERTIFIED COURT REPORTER DATE</p> <p>14 MIDDLESEX COUNTY COURTHOUSE</p> <p>15</p> <p>16</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p>
Page 199	
<p>1 MR. DUBIN: I've handed the witness a report 2 in another case that he has issued entitled "Analysis 3 of Johnson & Johnson Baby Powder, Valeant Shower to 4 Shower Talc Products For Amphibole Asbestos," and I 5 labeled it D-12 -- 12249.</p> <p>6 THE COURT: Thank you.</p> <p>7 BY MR. DUBIN:</p> <p>8 Q Look at excerpts from that report. I'll hand 9 you up the excerpts D-11249 A.</p> <p>10 So we still have the timing let's back up 11 again, slide 35. Have you had a chance to look at the 12 materials that I provided to you?</p> <p>13 A Yes.</p> <p>14 MR. DUBIN: And for demonstrative purposes, 15 D-12249 A.</p> <p>16 MS. COOPER: No objection to demonstrative 17 purposes, your Honor.</p> <p>18 THE COURT: Fine.</p> <p>19 (Continuation of the day's proceedings in 20 Volume 2.)</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p>	